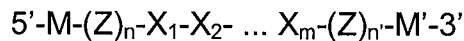


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A probe having the general structural formula (I)



wherein X_1 , $X_2 \dots$ and X_m are in each case an arbitrary nucleotide or nucleotide analog and in which the sequence $X_1-X_2- \dots X_m$ is a probe sequence which is capable of binding to an analyte,

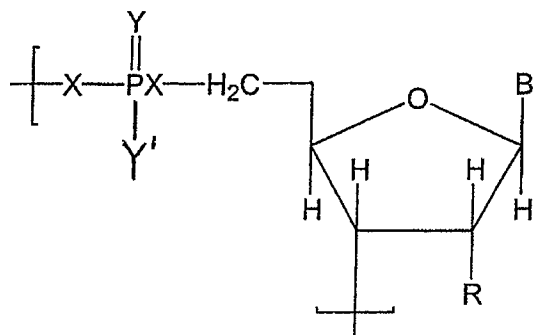
Z is, in each case independently, a pyrimidine nucleotide or pyrimidine nucleotide analog,

M and M' are fluorescent labeling groups,

n and n' are, in each case independently, integers of from 1 to 15, and

m is an integer corresponding to the length of the probe sequence.

2. (Original) The probe as claimed in claim 1, characterized in that X_1 , $X_2 \dots$ and X_m are selected, in each case independently, from units having the general structural formula (II) or salts thereof:



wherein

B is a natural or unnatural nucleobase,

R is a radical which is selected from H, OH, halogen, -CN, -C₁-C₆-alkyl, -C₂-C₆-alkenyl, -C₂-C₆-alkynyl, -O-C₁-C₆-alkyl, -O-C₂-C₆-alkenyl, -O-C₂-C₆-alkynyl, -SH, -S-C₁-C₆-alkyl, -NH₂, -NH(C₁-C₆-alkyl) and -N(C₁-C₆-alkyl)₂,

-X is, in each case independently, a radical which is selected from -O-, -S-, -NR'- and -CR'₂-,

-Y is, in each case independently, a radical which is selected from =O and =S, and

-Y' is, in each case independently, a radical which is selected from -OR', -SR', -(NR')₂ and -CH(R')₂,

where R' is, in each case independently, H or C₁-C₃-alkyl.

3. (Previously presented) The probe as claimed in claim 1, characterized in that X₁, X₂ ... and X_m are 2'-deoxynucleotides.
4. (Previously presented) The probe as claimed in claim 1,

characterized in that Z is selected from thymidine nucleotides or nucleotide analogs and/or cytidine nucleotides or nucleotide analogs.

5. (Previously presented) A probe as claimed in claim 1, characterized in that at least one Z is a thymidine nucleotide or nucleotide analog.
6. (Previously presented) The probe as claimed in claim 1, characterized in that Z is in each case a thymidine 2'-deoxynucleotide.
7. (Currently Amended) The probe as claimed in claim 1, characterized in that M and M' are selected, in each case independently, from ~~rhodamines~~ RHODAMINES™, fluoresceins, oxazines, cyanines, ~~Bodipy~~ BODIPY™ Alexa and Alexa ALEXA™ dyes.
8. (Previously presented) The probe as claimed in claim 1, characterized in that M and M' are selected from green fluorescent labeling groups.
9. (Previously presented) The probe as claimed in claim 1, characterized in that M and M' are identical.
10. (Withdrawn) The probe as claimed in claim 1, characterized in that M and M' are different.

11. (Previously presented) The probe as claimed in claim 1, characterized in that n and n' are, in each case independently, integers of from 3 to 10.
12. (Previously presented) The probe as claimed in claim 1, characterized in that m is an integer of 10-90, preferably of 12-50.
13. (Withdrawn) The use of one or more probes as claimed in claim 1 in a method for detecting an analyte in a sample.
14. (Original) The use as claimed in claim 13, characterized in that the concentration in the sample of the analyte to be detected is $\leq 10^{-9}$ M.
15. (Previously presented) The use as claimed in claim 13, characterized in that the analyte is a nucleic acid.
16. (Original) The use as claimed in claim 15, characterized in that the nucleic acid to be detected is an RNA from a biological sample or an unamplified cDNA which is synthesized therefrom.
17. (Previously presented) The use as claimed in claim 15,

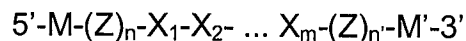
characterized in that the nucleic acid to be detected is an unamplified genomic DNA.

18. (Previously presented) The use as claimed in claim 13 in fluorescence correlation spectroscopy (FCS).
19. (Previously presented) The use as claimed in claim 13, characterized in that several probes in each case having a different sequence and different labeling groups are used for detecting a single analyte.
20. (Original) The use as claimed in claim 19, characterized in that the detection comprises a crosscorrelation determination.
21. (Previously presented) A method for detecting an analyte in a sample, comprising bringing the sample into contact with one or more probes as claimed in claim 1 under conditions under which the one or more probes can bind to the analyte to be detected and then determining whether binding takes place or not.
22. (Previously presented) The method as claimed in claim 21, comprising the detection of a nucleic acid by means of hybridization.

23. (Withdrawn) The method as claimed in claim 22,
characterized in that the nucleic acid to be detected is not amplified before
being brought into contact.

24. (New) The probe according to claim 1, wherein said nucleotide analog and
said pyrimidine nucleotide analog are independently a PNA or LNA building block.

25. (New) A probe having the general structural formula (I)



wherein X_1 , $X_2 \dots$ and X_m are in each case an arbitrary nucleotide or
nucleotide analog and in which the sequence $X_1-X_2- \dots X_m$ is a probe
sequence which is capable of binding to an analyte,

Z is, in each case independently, a pyrimidine nucleotide or pyrimidine
nucleotide analog,

M and M' are fluorescent labeling groups,

n and n' are, in each case independently, integers of from 3-10, and

m is an integer corresponding to the length of the probe sequence.